



# Waterproofing for roof systems



**we  
care**



# About Saint-Gobain

Saint-Gobain established in 1665 in France, is the world leader in the habitat and construction markets, it employs about 170000 people in 66 countries. Saint-Gobain designs, manufactures and distributes building materials, providing innovative solutions to meet growing demand in emerging economies, for energy efficiency and for environmental protection.

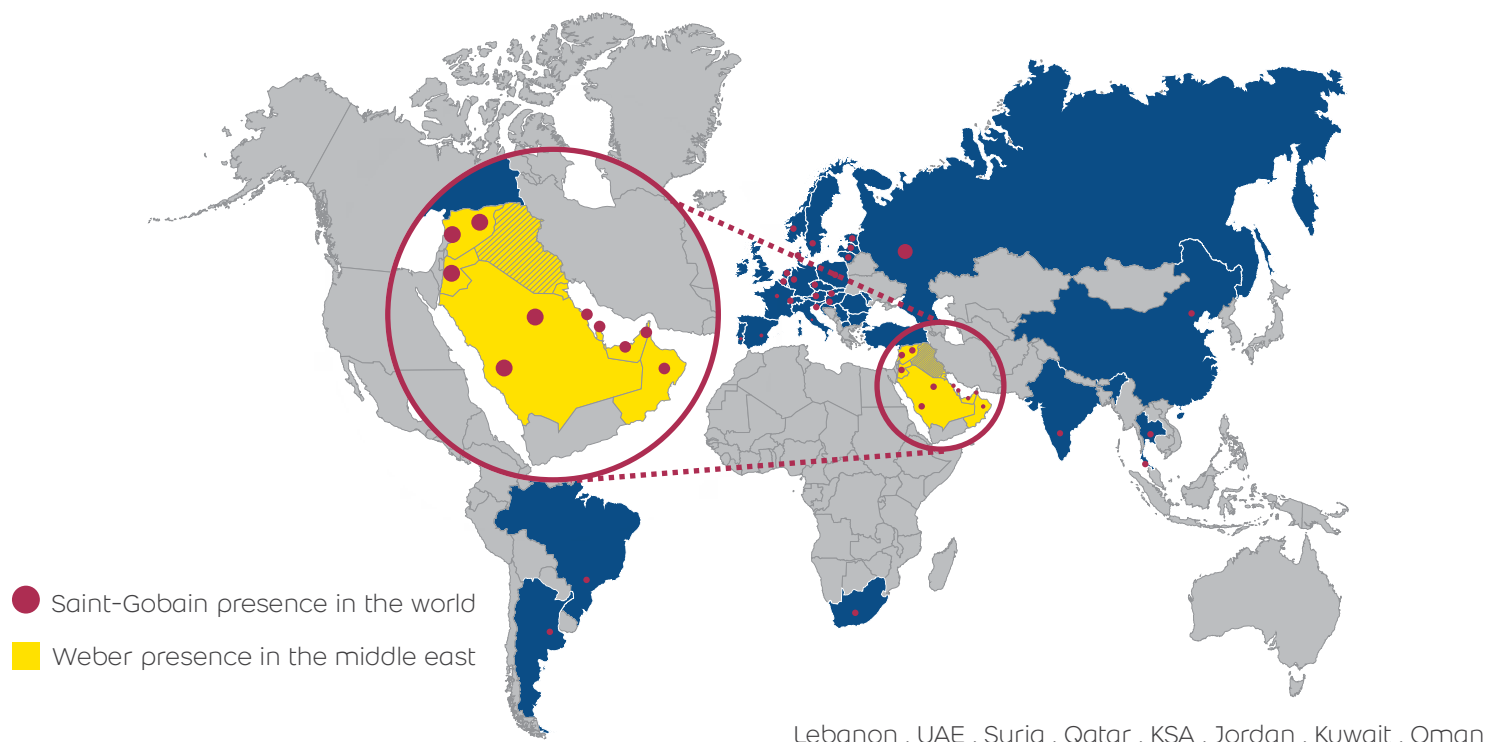
Weber is incorporated as Saint-Gobain Weber Ltd and is a subsidiary of Saint-Gobain, employing 10,000 people across 57 countries worldwide and 200 production units.

Sodamco-Weber fully integrated in Saint-Gobain group is recognized as "Construction Chemicals Experts" in the Middle East and the Gulf. After 31 years of continuous growth in more than 8 countries in the region, it manufactures and markets quality construction chemical products particularly suitable to the building standards and specific climate conditions.

## Weber History

- 1900 • Both companies Weber et Broutin were founded in France in the early 20th century. George Weber and Jean-Baptiste Broutin made gypsum and lime based façade renders in their factories in Paris. They merged in 1927.
- 1946 • After world war 2, the company expanded into the reconstruction market.
- 1970 • It became part of the Poliet group in 1970, and gradually expanded.
- 1982 • In 1982 Weber et Broutin started to develop on European markets.
- 1990 • Weber accelerates its European expansion: Italy, Germany, Eastern Europe...
- 1996 • Weber joined the Saint-Gobain group. The company became Saint-Gobain Weber.
- 1998 • Take over of Quartzolit and Concreto in South America. At the same time, Asia became Weber's second development zone outside Europe, with operations in Thailand, China, and Malaysia.
- 2008 • Saint-Gobain acquired Maxit Group, extending the presence of Weber to Nordic countries and Baltic, whilst reinforcing it in Germany, Benelux, Central and Eastern Europe, Russia and China.
- 2009 • Saint-Gobain Weber, finalized a joint-venture agreement with SODAMCO in the Middle East, extending the operations to Lebanon, Syria, Jordan, Kuwait, Saudi Arabia, UAE, Qatar, and Oman, and opening good opportunities of development in this region.
- 2012 • **Sodamco-Weber is fully integrated in Saint-Gobain group** which enables Saint-Gobain Construction Products Sector to develop the various innovative products and solutions offered to all real estate sustainable development projects namely residential or infrastructure projects in the future.

## 📍 Sodamco-Weber presence in the Middle East



## Sodamco-Weber Product Range

Tile Fixing • Façade Renders & Insulation Systems • Technical & Repair Mortars • Waterproofing • Plastering Mortars • Flooring • Admixtures for Concrete

A child wearing a bright red poncho and green rubber boots is jumping in a puddle. The child is holding a purple umbrella. Water is splashing around the child's feet. The background is a blurred green landscape.

# Waterproofing for roof systems

## Index

Waterproofing of exposed roofs (non-residential).....	p. 3
Waterproofing of walkable roofs (residential).....	p. 4
Waterproofing systems for rooftop garden & planted areas .....	p. 5
Thermally insulated roofs (Inverted roof system) .....	p.6
Thermally insulated roofs (California system) .....	p.7



# Waterproofing of exposed roofs

All concrete structures are known to be porous and to have capillary tracts. Concrete can also be weak and shows cracks and voids that are due to its composition, application and weather conditions. Waterproofing the concrete structure is essential to avoid problems such as oxidation of steel and damages related to water infiltration. Roofs are generally exposed to heavy weather conditions and require specific waterproofing solutions. Weber proposes several waterproofing solutions for roofs (exposed, covered, planted, insulated).

In all cases, surface preparation is a must for a durable waterproofing (refer to TDS on [www.sodamco-weber.com](http://www.sodamco-weber.com)). The waterproofing membranes, liquid PU, cementitious or bituminous, are considered to be most important component of the roofing system as it serve the main function of keeping water away from the structure of the building. Below are most common roof waterproofing membranes systems.

## 1. Waterproofing with polyurethane liquid membranes (non-residential)

- a) **weberdry 310 PU primer** (primer coating - 1 coat)
- b) **weberdry 350 PU or weberdry 360 PU**  
(polyurethane finish coat UV stable for light traffic - 2 coats)
- c) **weberfloor 230 PU** (aliphatic polyurethane top coat, UV stable for domestic pedestrian traffic - 1 coat)

## + Benefits

- Seamless
- Semi flexible
- Easy to apply
- Easy maintenance and repair
- Recommended for roofs with a lot of upstands

	Phase 1 Primer	Phase 2 Waterproofing			Phase 3 Top coat
Name	weberdry prime 310 PU	weberdry 350 PU	or weberdry 360 PU	or weberdry 380 PU	weberfloor 230 PU
Color	Transparent	White	White	Transparent	Colored
Number of coats	1 coat	2 coats	2 coats	2 coats	2 coats
Consumption	0.2 kg/m <sup>2</sup>	1.4 kg/m <sup>2</sup>	1.4 kg/m <sup>2</sup>	0.8-1.2 kg/m <sup>2</sup>	0.25-0.3 kg/m <sup>2</sup>
UV resistance	N/A	Stable	Resistant	Stable	Stable
Traffic	N/A	Light traffic	Light traffic	Light traffic	Medium traffic

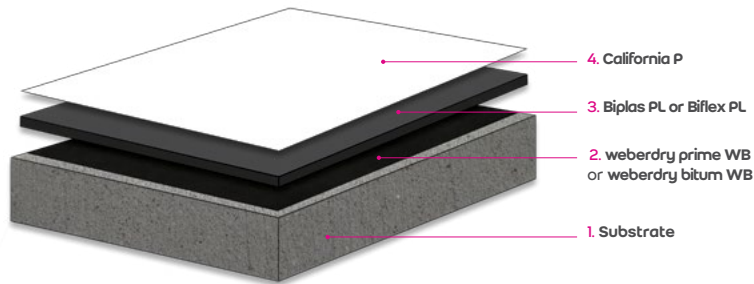


# Waterproofing of exposed roofs

## 2- Waterproofing with bituminous sheet membranes and cement-based coating (residential)

### UV protected low traffic roof

High solar reflective, waterproofing spread over horizontal waterproofing membranes.

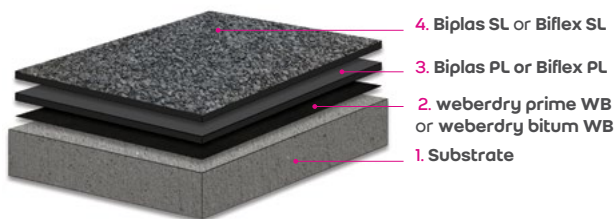


### Benefits

- Better performance can bridge over cracks and gaps.
- More resistant to indentations caused by traffic.
- More suitable for large flat roofs and big areas exposed to foot traffic.

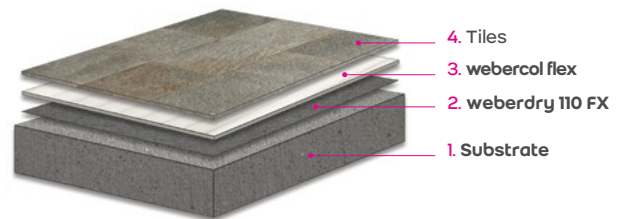
### Low traffic roof

Slated waterproofing membranes as **Biplas SL** or **Biflex SL**



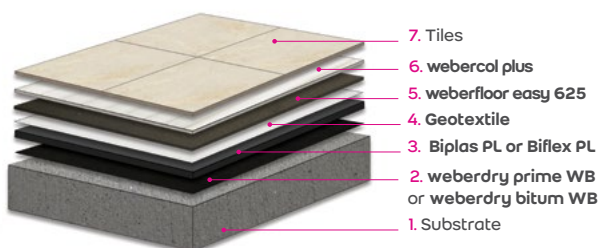
### Tiled walkable roof with cement-base waterproofing roof

Flexible high performance cement base waterproofing coat to be covered with tile after one week by using **webercol flex** as tile adhesive.



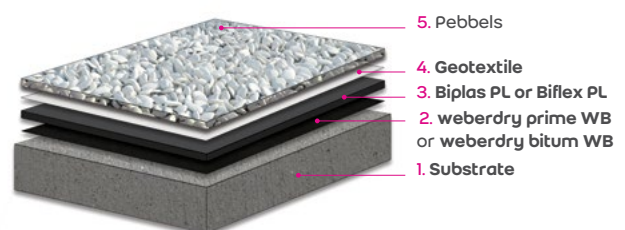
### Tiled walkable roof

**weberfloor easy 625** to be covered with tile after one week by using **webercol plus**.



### Decorative non-walkable roof

Aggregates or pebbles are spread over the horizontal waterproofing membranes to an average thickness of 5 cm



*\*Applied only for rooftops lower than 15 m height*

# Waterproofing systems for rooftop garden & planted areas

Roof must be waterproofed durably and frost resistant if you are growing plants on it; whether you will grow plants on containers, raised beds or on the roof itself. Waterproofing system is a must and should be first step of terrace garden construction as it protects the roof from leaking. Waterproofing should cover up the entire surface of the roof.

## Waterproofing layers

- 1) **weberdry prime WB** or **weberdry bitum WB**
- 2) **Biflex PL anti-root 4 mm** (2 layers)

## Drainage layers

- 3) **Geotextile white PET**
- 4) Bed of Pebble round gravels of 100 mm thickness
- 5) **Geotextile white PET**

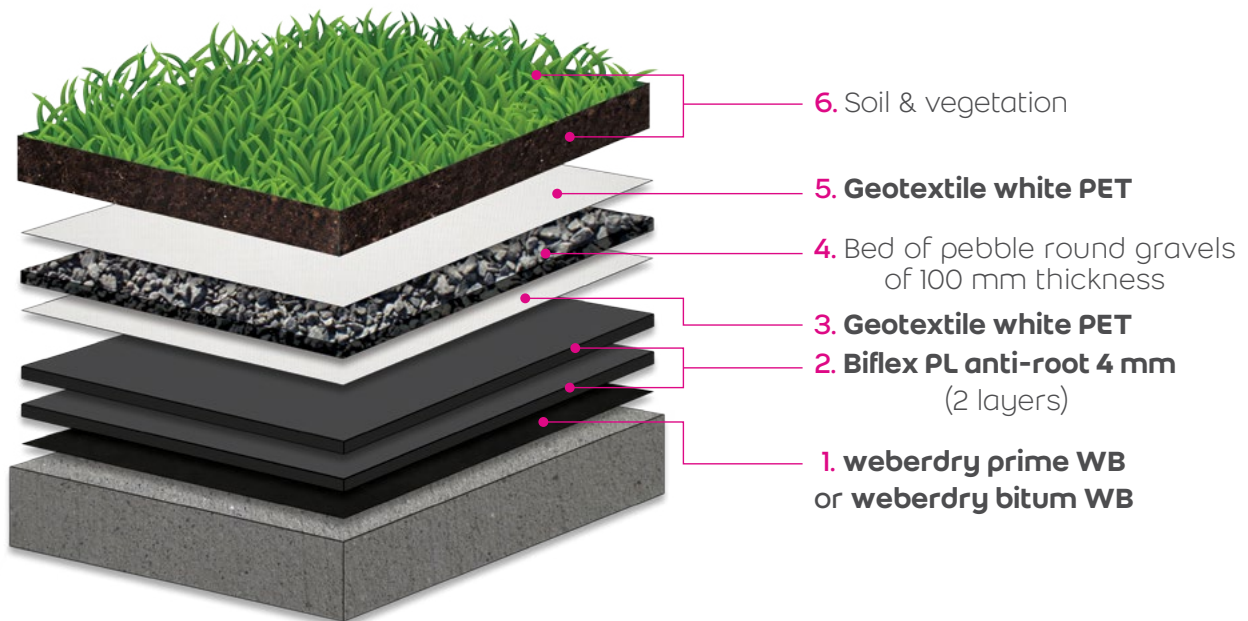
## Finish layers

- 6) Soil and vegetation



## Benefits

- Achieves energy savings
- Reduces heat island effect
- Reduces noise from exterior sources
- Provides environmental benefits





# Thermally insulated roofs

## Inverted roof system

The inverted roof system consist of a waterproofing layer, insulation layer and finishing layer (compared to the conventional system where the waterproofing is laid above insulation layer) in this, the waterproofing is arranged under thermal insulation.

With this arrangement, the roof waterproofing membranes remain protected from mechanical damage and against the direct influence of external factors (temperature, UV radiation...)

The temperature on the waterproofed surface remains stable regardless of the weather conditions, which reflect on the durability and performance of the waterproofing system.

### Waterproofing layers

#### Option A

- 1) **weberdry prime WB**  
or **weberdry bitum WB**
- 2) **Biflex PL** (1 layer)

#### Option B

- 1) **weberdry 360 PU**  
or **weberdry 110 FX**

### Insulation layers

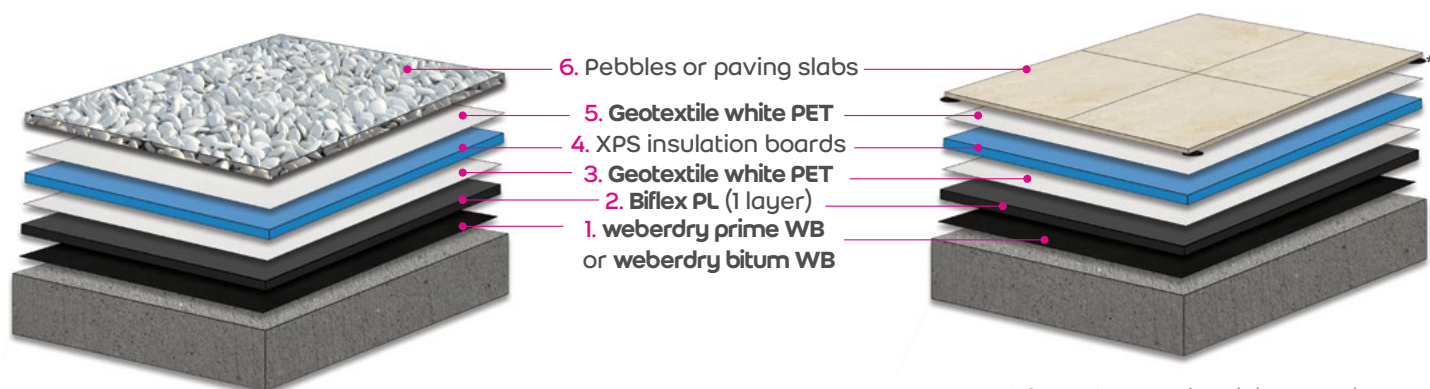
- 3) **Geotextile white PET**
- 4) Extruded Polystyrene boards (XPS)
- 5) **Geotextile white PET**

### Finishing layers

- 6) Pebbles or paving slabs

## + Benefits

- **Significant reduction of thermal impact**
- **Higher life expectancy of the waterproofing membrane**
- **Reduces the risk failure of the waterproofing membrane**
- **No vapour built up**



\* Concrete or paving slabs on pads support



# Thermally insulated roofs

## California system

California system is an insulated walkable (non-residential) flat roofing, finished with white high reflective aluminium foil self-protected membrane with double layer waterproofing application in full bonding. It gives a full waterproofing, thermal and sound solutions for roofing.

### Waterproofing layers

- 1) ECOPRIVER (bituminous primer)
- 2) TENDER ALUVAPOR 2 Kg (vapor barrier elastoplastomeric bituminous membrane)

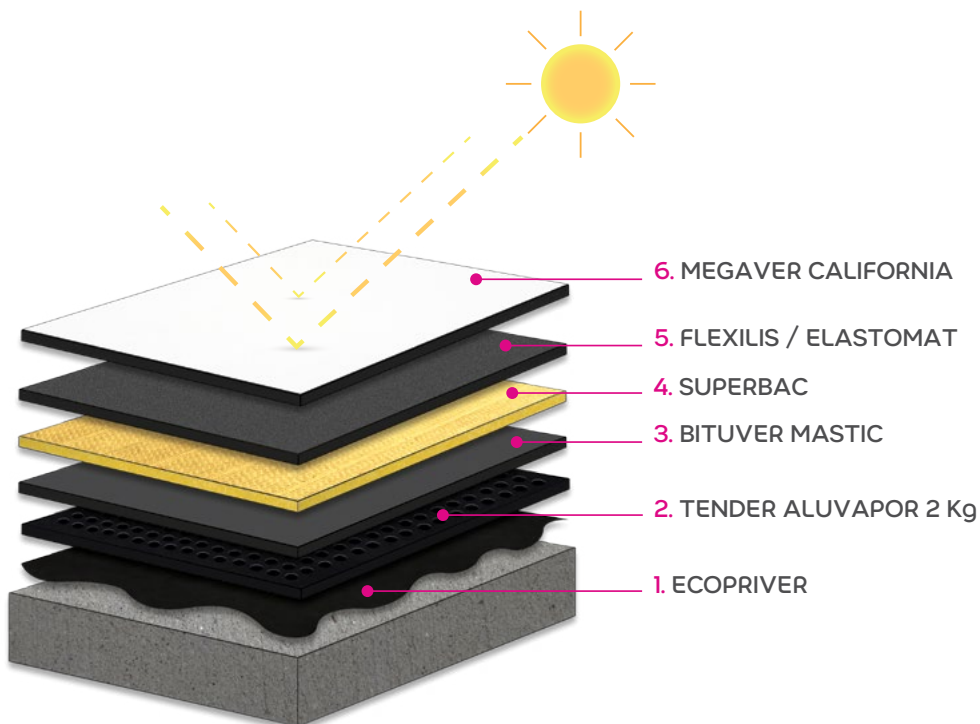
### Thermal & sound insulation layers

- 3) BITUVER MASTIC (Solvent-free glue for insulating panels)
- 4) SUPERBAC (thermal & acoustic insulation slab)
- 5) FLEXILIS / ELASTOMAT (waterproofing membranes)
- 6) MEGAVER CALIFORNIA (waterproofing membrane with high solar reflectance index)



### Benefits

- Reduction in the surface temperature of the roof
- 30% reduction in air conditioning costs
- Better living comfort, particularly for the top floor
- Considerable extending life span of waterproofing (Protection from UV)





1



**ECOPRIVER is a water based bituminous primer water based bituminous primer.**

#### Main characteristics

- ECO PRIVER is generally employed as dust-proof under-layer and as primer for the application of prefabricated bituminous membranes and during prefabrication as protective element for concrete surfaces.
- It Can also be used on metallic surfaces.
- It is very fluid, brown-colored, with a good viscosity degree.

2



**ALUVAPOR TENDER is an elastoplastomeric membrane realized with a compound having a  $-5^{\circ}\text{C}$  cold flexibility and a special reinforcement consisting in a goffered aluminum foil with 40 micron thickness, matched with a glass tissue.**

#### Main characteristics

- ALUVAPOR TENDER used as an anti- vapor barrier on insulated roofs or as base layer or middle layer.
- Applied by flame with a gas propane blow torch by heating the lower face
- Covered with a special thermo fusible film

3

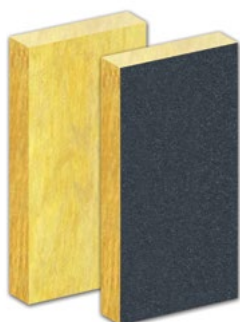


**BITUMASTIC is a bituminous mastic in water emulsion.**

#### Main characteristics

- It can be employed as glue for insulating panels, replacing the traditional system of hot bitumen.
- It is solvent-free; it can be therefore used for fixing panels of any type: in glass wool, rock wool, polystyrene, polyurethane. It can be applied on concrete, cement concrete, bricks and other materials with sufficient porosity to absorb a part of the water contained in BITUMASTIC.

4



**SUPERBAC Slab for thermal and acoustic insulation of pitched and flat roofs made by using high density, crimped, water repellent mineral insulation G3.**

**Made in Italy with at least 80% of recycled glass and with a new generation of thermo-hardening resin that associates organic and vegetal components and minimizes emissions of pollutant substances, like formaldehyde and others volatile organic compounds (VOC).**

### Main characteristics

- Thermal and acoustic insulation faced on one side with a bitumen layer reinforced with a glass veil and with polypropylene film as finishing.
- Easy to handle mechanically resistant.
- Resistant to sacking.
- Rot proof.
- Resistant to molds.
- Stable in time.

5

**FLEXILIS is a membrane realized with a special compound based on bitumen modified with new generation elastomeric polymers (BPE). The reinforcement is in polyester reinforced with glass cloth.**

### Main characteristics

- High flexibility during application at subzero and at high temperature with no physical strains.
- High quality anti-root additives suitable especially for roofs, gardens and flower boxes
- Accommodates structural movements.
- Resistant to chemical attacks.
- Applied by flame with a gas propane blow torch by heating the lower face.



6

**MEGAVER CALIFORNIA is a membrane with high solar reflectance index (SRI) for energy saving and against Heat Island effect, realized with a special compound based on bitumen modified with new generation elastomeric polymers (BPE).**

### Main characteristics

- MEGAVER CALIFORNIA is made of a double reinforcement of glass tissue and glass cloth, faced with a goffered aluminum foil pre-painted with white reflecting PVDF paint .
- It has better adhesion and durability.
- High reduction of the temperature on the roof (up to 40 °C) The energy saving reaches up to 70% of air conditioning costs compared to a waterproof flat roof.
- Applied by flame with a gas propane blow torch by heating the lower face
- Covered with a special thermo fusible film
- UV resistant on surface.





# Waterproofing products



## **weberdry bitum WB**

or **weberdry prime WB**

**Cold applied bitumen protective coating**



15 lit and 200 lit

### **Benefits**

- Excellent water and moisture proof properties and vapour permeable
- Adhere to wide range of materials including new and old concrete
- Serves both as a protective coating and curing membrane
- Resists attack by chloride and sulphate ions present in the ground water

## **Biflex PL**

**SBS modified bituminous membrane – Plain**



1x10 m

### **Benefits**

- High flexibility during application at subzero and at high temperature with no physical strains.
- High malleability making it entirely suitable for difficult basement and foundation works.
- Accommodates structural movements.
- Resistant to chemical attacks.

## **Biflex SL**

**SBS modified bituminous membrane – Slated**



1x10 m

### **Benefits**

- High flexibility during application at subzero and at high temperature with no physical strains.
- High malleability making it entirely suitable for difficult basement and foundation works.
- Accommodates structural movements.
- Resistant to chemical attacks.

## **Biflex PL anti-root 4 mm**

**SBS modified bituminous membrane for roof garden**



1x10 m

### **Benefits**

- High flexibility during application at subzero and at high temperature with no physical strains.
- High quality anti-root additives suitable especially for roofs, gardens and flower boxes
- Accommodates structural movements.
- Resistant to chemical attacks.



## **weberdry 360 PU**

**Liquid applied polyurethane waterproofing membrane - UV resistant**



6kg, 25kg

### **Benefits**

- One component, easy application by roll
- Long-lasting waterproofing, water insoluble
- Permanent high elasticity can be walked on
- Resistant to detergents, oils, seawater and domestic chemicals.

## **weberdry 350 PU**

**Liquid applied polyurethane waterproofing membrane UV resistant**



6kg, 25kg

### **Benefits**

- One component, easy application by roll
- Long-lasting waterproofing, water insoluble
- Higher elongation and extra white
- Resistant to detergents, oils, seawater and domestic chemicals.

## **webedry 310 PU primer**

**Deep penetrating polyurethane primer**



1kg, 17kg

### **Benefits**

- One-component and easy to apply
- Excellent adhesion
- Used on absorbent substrate
- Chemical resistance to Diesel oil, xylene, ammonia 10%, hydrochloric acid 10%, sea water, sodium hydroxide 20%.

## **Geotextile white PET**

**Nonwoven geotextile**

**Benefits**



- Sand filter allows water to move through the soil.
- Anti-puncturing protection
- Protection for exposed waterproofing membranes

## **california P**

**High solar reflective paint**

### **Benefits**

- One component
- Easy application by roll
- Long-lasting waterproofing
- Permanent high elasticity
- better living comfort by reduction of the surface roof temperature and energy saving approx.by 30%





**TILE FIXING**



**WATERPROOFING**



**FAÇADE RENDERS  
& INSULATION SYSTEMS**



**PLASTERING  
MORTARS**



**TECHNICAL &  
REPAIR MORTARS**



**FLOORING**



**CONCRETE  
ADMIXTURES**

For more info about our products  
scan the QR code to download our app.



Available on the  
**App Store**

ANDROID APP ON  
**Google play**

or visit our website

**www.sodamco-weber.com**



#### HEAD OFFICE

Saint-Gobain Middle East Holding S.A.L.

Tayar Center Bloc B 1st Flr Charles de Gaulle Str. Sin el Fil P.O. Box 55-44 Beirut Lebanon

T +961 1 510 863/4 M +961 3 380 748 F +961 1 510 862

**LEBANON** T +961 9 790 920/1/2/3 M +961 3 700 892/3 F +961 9 790 924

**SYRIA** T +963 11 442 4239 / +963 11 214 5548 F +963 11 442 4239

**JORDAN** T +962 6 420 0417 F +962 6 420 0418

**QATAR** T +974 4442 3816 F +974 4442 5149

**KUWAIT** T +965 2 571 6404 / +965 2 571 0397 F +965 2 571 2721

#### UAE

Dubai T +971 4 347 2640 F +971 4 340 3420

Abu Dhabi T +971 2 550 9994 F +971 2 550 9449

#### KSA

Jeddah T +966 12 668 3295 F +966 12 668 1498

Riyadh T +966 11 473 8751 / +966 11 472 5339

**OMAN** T +968 24 21 83 61 F +968 24 21 83 62



**Find us on Facebook!**

Saint-Gobain Weber middle east



For more info about  
waterproofing range  
please scan the QR code